

Faraday's Researches

relations to commerce and litigation, he said to me that at a certain period of his career he was forced definitely to ask himself, and finally to decide, whether he should make wealth or science the pursuit of his life. He could not serve both masters, and he was therefore compelled to choose between them. After the discovery of magneto-electricity his fame was so noised abroad that the commercial world would hardly have considered any remuneration too high for the aid of abilities like his. Even before he became so famous, he had done a little "professional business." This was the phrase he applied to his purely commercial work. His friend, Richard Phillips, for example, had induced him to undertake a number of analyses, which produced, in the year 1830, an addition to his income of more than a thousand pounds; and in 1831, a still greater addition. He had only to will it to raise in 1832 his professional business income to £5000 a year. Indeed, this is a wholly insufficient estimate of what he might, with ease, have realised annually during the last thirty years of his life.

While restudying the experimental researches with reference to the present memoir, the conversation with Faraday here alluded to came to my recollection, and I sought to ascertain the period when the question, "wealth or science," had presented itself with such emphasis to his mind. I fixed upon the year 1831 or 1832, for it seemed beyond the range of human power to pursue science as he had done during the

subsequent years, and to pursue commercial work at the same time. To test this conclusion I asked permission to see his accounts, and on my own responsibility, I will state the result. In 1832, his professional business-income, instead of rising to £5000, or more, fell from £1090' 4s. to \wedge 155 *gs.* From this it fell with slight oscillations to \wedge 92 in 1837, and to zero in 1838. Between 1839 and 1845, it never, except in one instance, exceeded \wedge 22; being for the most part much under this. The exceptional year referred to was that in which he and Sir Charles Lyell were engaged by Government to write a report on the Haswell Colliery explosion, and then his business income rose to £112. From the end of 1845 to the day of his death, Faraday's annual professional business income was exactly zero. Taking the duration of his life into account, this son of a blacksmith, and apprentice to a bookbinder, had to decide between a fortune of \wedge 150,000 on the one side, and his undowered science on the other.